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| Sec. | |
| 517. | National architecture and standards. |
| 518. | Vehicle-to-vehicle and vehicle-to-infrastructure communications systems deployment. |

PRIOR PROVISIONS

A prior chapter 5, added Pub. L. 90-495, §30, Aug. 23, 1968, 82 Stat. 830, consisting of sections 501 to 512, related to highway relocation assistance, prior to repeal by Pub. L. 91-646, title II, §220(a)(10), Jan. 2, 1971, 84 Stat. 1903. See section 4601 et seq. of Title 42, The Public Health and Welfare. For Effective Date of Repeal and Savings Provisions, see sections 221 and 220(b) of Pub. L. 91-646, set out as notes under sections 4601 and 4621, respectively, of Title 42.

AMENDMENTS

2012—Pub. L. 112-141, div. E, title II, §§52002(b), 52003(b), 52006(b), 52007(b), 52008(b), title III, §§53002(b), 53003(b), 53004(b), 53005(b), 53006(b), July 6, 2012, 126 Stat. 872, 880, 882, 899, 901-903, 905, substituted “Surface transportation research, development, and technology” for “Surface transportation research” in item 502 and “Research and technology development and deployment” for “Technology deployment program” in item 503, struck out items 506 “International highway transportation outreach program”, 507 “Surface transportation environment and planning cooperative research program”, and 509 “National cooperative freight transportation research program”, and added items 514 to 518.

2008—Pub. L. 110-244, title I, §111(b)(2)(B), June 6, 2008, 122 Stat. 1605, amended Pub. L. 109-59, §5210. See 2005 Amendment note below.

2005—Pub. L. 109-59, title V, §5210(c), formerly §5210(d), Aug. 10, 2005, 119 Stat. 1804, as renumbered by Pub. L. 110-244, title I, §111(b)(2)(B), June 6, 2008, 122 Stat. 1605, added item 510.

Pub. L. 109-59, title V, §§5201(a)(2), 5207(c), 5208(b), 5209(c), 5211(c), 5301(b), 5302(b), Aug. 10, 2005, 119 Stat. 1781, 1798, 1799, 1801, 1804, 1805, substituted “RESEARCH, TECHNOLOGY, AND EDUCATION” for “RESEARCH AND TECHNOLOGY” in chapter heading, “Surface transportation environment and planning cooperative research program” for “Surface transportation-environment cooperative research program” in item 507, “Transportation research and development strategic planning” for “Surface transportation research strategic planning” in item 508, and added items 509 and 511 to 513.

§ 501. Definitions

In this chapter, the following definitions apply:

(1) **FEDERAL LABORATORY.**—The term “Federal laboratory” includes a Government-owned, Government-operated laboratory and a Government-owned, contractor-operated laboratory.

(2) **INCIDENT.**—The term “incident” means a crash, natural disaster, workzone activity, special event, or other emergency road user occurrence that adversely affects or impedes the normal flow of traffic.

(3) **INNOVATION LIFECYCLE.**—The term “innovation lifecycle” means the process of innovating through—

- (A) the identification of a need;
- (B) the establishment of the scope of research to address that need;
- (C) setting an agenda;
- (D) carrying out research, development, deployment, and testing of the resulting technology or innovation; and
- (E) carrying out an evaluation of the costs and benefits of the resulting technology or innovation.

(4) **INTELLIGENT TRANSPORTATION INFRASTRUCTURE.**—The term “intelligent transportation infrastructure” means fully integrated public sector intelligent transportation system components, as defined by the Secretary.

(5) **INTELLIGENT TRANSPORTATION SYSTEM.**—The terms “intelligent transportation system” and “ITS” mean electronics, photonics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.

(6) **NATIONAL ARCHITECTURE.**—For purposes of this chapter, the term “national architecture” means the common framework for interoperability that defines—

- (A) the functions associated with intelligent transportation system user services;
- (B) the physical entities or subsystems within which the functions reside;
- (C) the data interfaces and information flows between physical subsystems; and
- (D) the communications requirements associated with the information flows.

(7) **PROJECT.**—The term “project” means an undertaking to research, develop, or operationally test intelligent transportation systems or any other undertaking eligible for assistance under this chapter.

(8) **SAFETY.**—The term “safety” includes highway and traffic safety systems, research, and development relating to vehicle, highway, driver, passenger, bicyclist, and pedestrian characteristics, accident investigations, communications, emergency medical care, and transportation of the injured.

(9) **STANDARD.**—The term “standard” means a document that—

- (A) contains technical specifications or other precise criteria for intelligent transportation systems that are to be used consistently as rules, guidelines, or definitions of characteristics so as to ensure that materials, products, processes, and services are fit for the intended purposes of the materials, products, processes, and services; and
- (B) may support the national architecture and promote—

- (i) the widespread use and adoption of intelligent transportation system technology as a component of the surface transportation systems of the United States; and
- (ii) interoperability among intelligent transportation system technologies implemented throughout the States.

(Added Pub. L. 105-178, title V, §5101(2), June 9, 1998, 112 Stat. 422; amended Pub. L. 112-141, div. E, title II, §52001, July 6, 2012, 126 Stat. 865.)

PRIOR PROVISIONS

A prior section 501, added Pub. L. 90-495, §30, Aug. 23, 1968, 82 Stat. 830, related to declaration of policy as to highway relocation assistance, prior to repeal by Pub. L. 91-646, title II, §220(a)(10), Jan. 2, 1971, 84 Stat. 1903.

AMENDMENTS

2012—Pars. (2) to (9). Pub. L. 112-141 added pars. (2) to (7), redesignated former par. (2) as (8), and added par. (9).